



PEOSYSCOM UID/RFID Panel



November 16, 2004

LeAntha Sumpter, UID Program Manager

Leantha.Sumpter@osd.mil

www.acq.osd.mil/dpap/uid

**United States Department of Defense
Undersecretary of Defense for Acquisition Technology and Logistics**



Unique Item Identification - How Is It Done?

The UID Is Derived From Discrete Component Data Elements – The UID Is Not Required To Be Marked On The Item As Its Own Data Element

Coded in the Data Matrix:



Enterprise Identifier = 0CVA5 (CAGE Code)
Original Part Number = 1234
Serial Number = 674A36458

The ISO assigned Issuing Agency Code (IAC) can be derived using the Enterprise data qualifier. The IAC for CAGE, is “D”:

UID Construct 1	UID Construct 2
<i>If the Serial Number is Unique within the Enterprise Identifier</i>	<i>If the Serial Number is Not Unique within the Enterprise Identifier but is Unique within the Part Number</i>
D0CVA5674A36458	D0CVA51234674A36458



The Main Direct Part Marking Processes



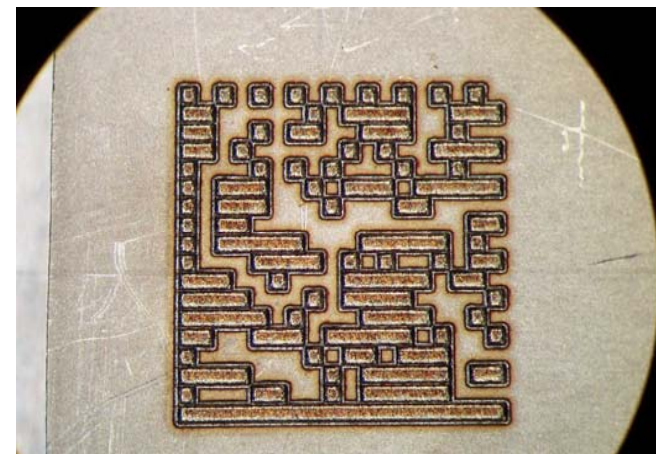
Dot Peen



**Electro
Chemi
Etch**



Ink Jet



Laser

Source: Rolls-Royce, Nat Russhard



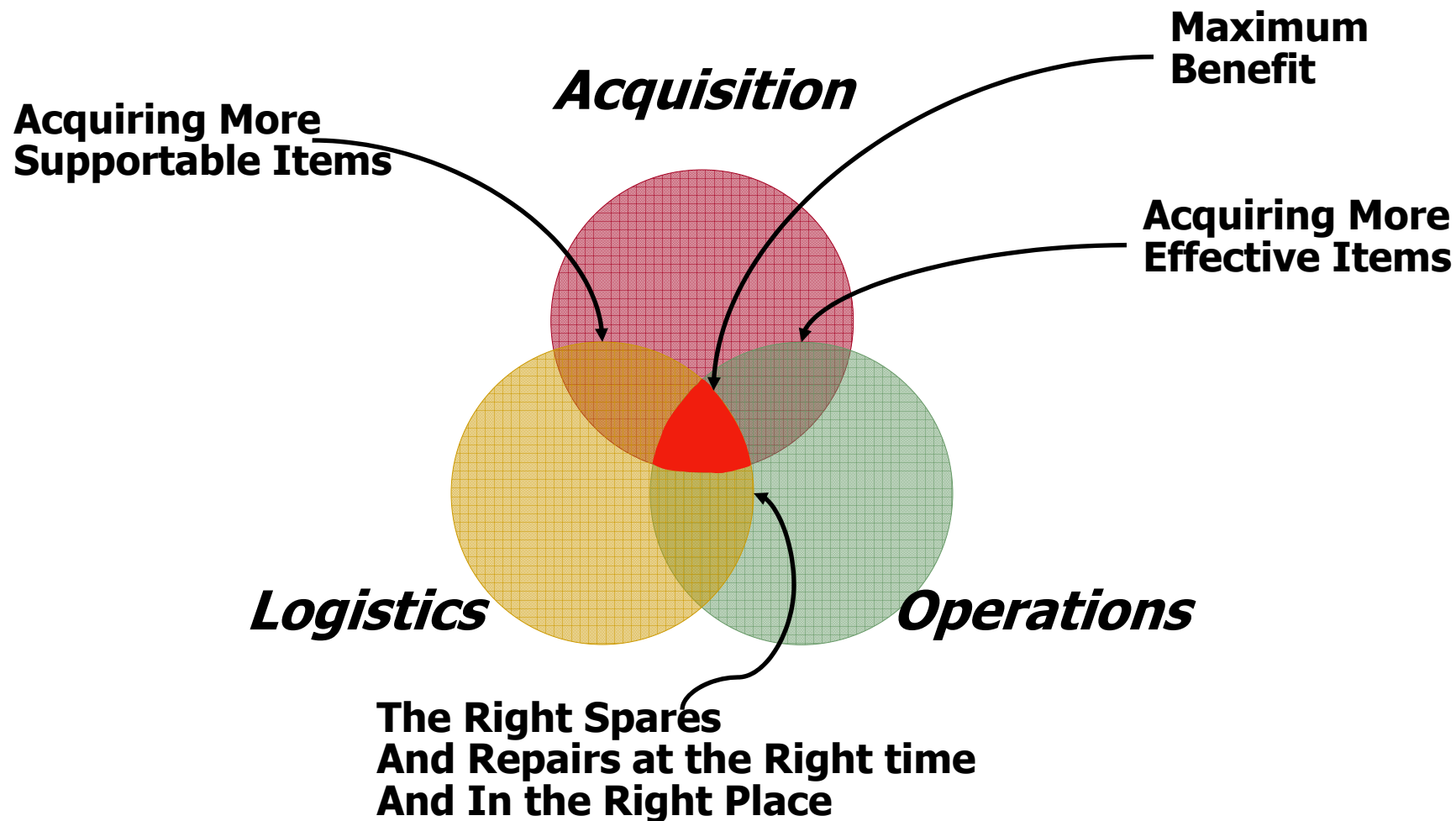
Future Vision



Source: Rolls-Royce, Nat Russhard



Where UID Can be Leveraged?





UID Application

- *Profiles or CONOPS*

> **Acquirers**

- Reprourement
 - Performance History and Analysis
 - Reliability and Maintainability Results
- Design
 - Similar prior system applications
 - Prior performance of similar components

> **Suppliers (Prime or Subcontractor)**

- Process Improvements
- Supplier Comparison



UID Application - Profiles or CONOPS

> Maintainer

- Establish differing maintenance schedules
- Determine effectiveness of same or differing schedules/techniques

> Operators

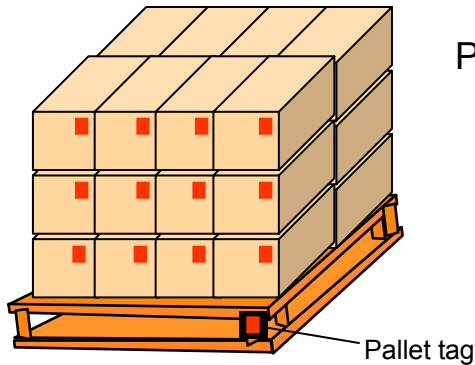
- Select amongst available equipment based on operational performance and readiness

> Planners

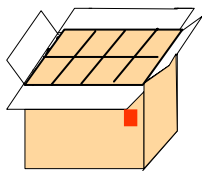
- Select equipment to:
 - Minimize logistics requirements
 - Maximize operational performance
 - Maximize reliability



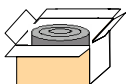
RFID Tagging



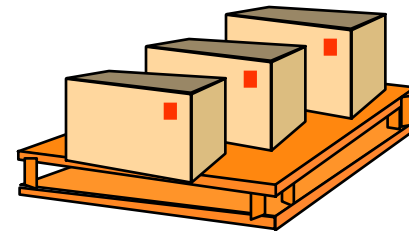
Palletized Unit Load Tag
YES



Exterior Container
YES



UID Item Unit Pack*
NO



Shipping Container
YES

*If the UID Packaging is also an External Container or a Shipping Container, it will have an RFID tag.



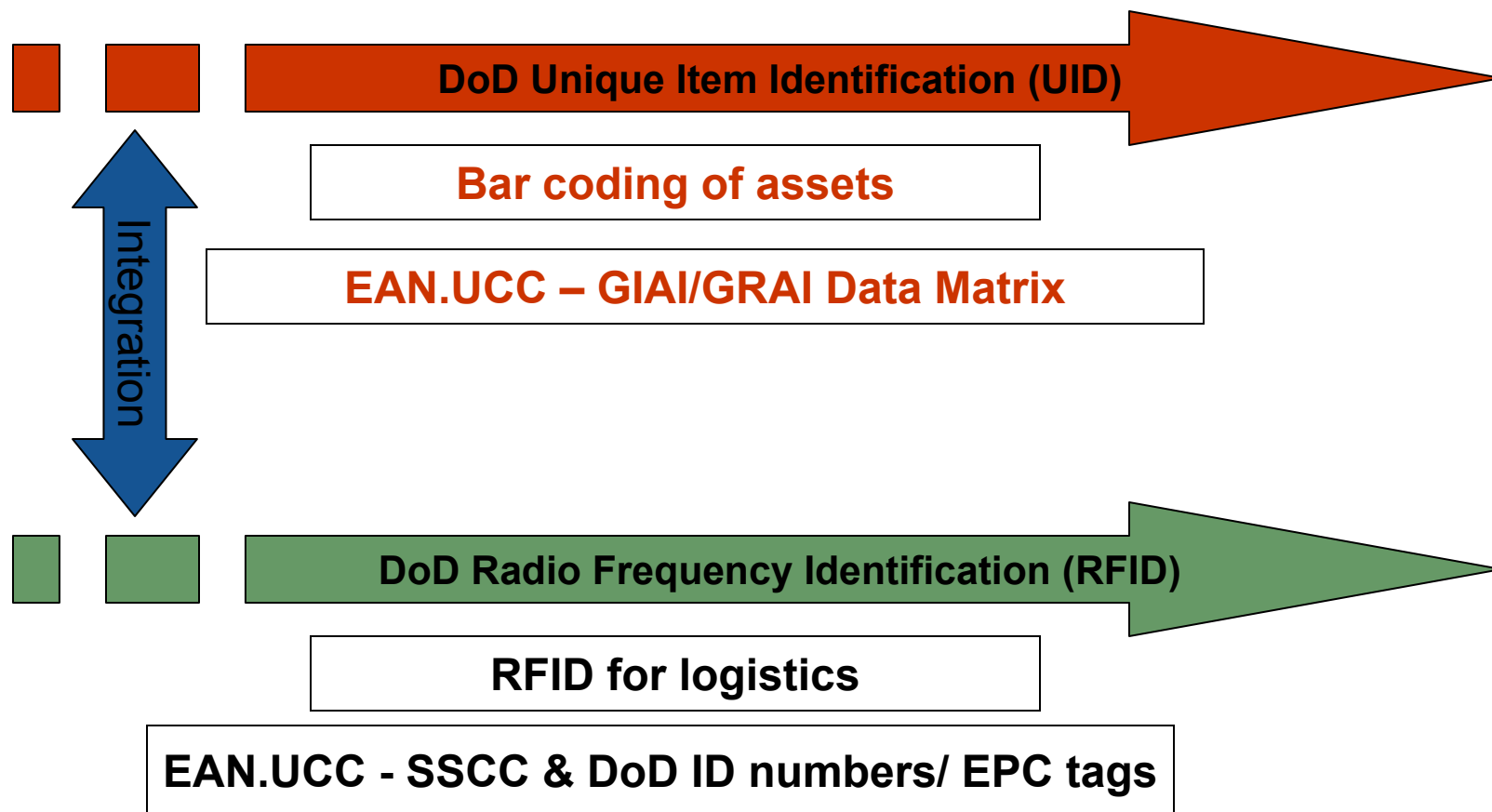
UID vs RFID

	UID	RFID
Marking	Item	Packaging
Technology	2D Data Matrix	EPC RFID tag
Purpose	Life cycle data visibility	Supply chain receipt/track
Threshold	>\$5000, some exceptions	NONE
Implementation	January 1, 2004	January 1, 2005

Separate but integrated initiatives
Different technologies
Different business rules



EAN.UCC Automatic Data Capture Support to the Department of Defense





Overarching UID Concept

To Establish an Approach and Revise Processes for Consistent, Reliable and Accurate Assignment and Use of Through Life Unique Identification That Is Integrated Across Items, Real Property, Force Management, People, Organizations, Locations, Etc.



Key Highlights of Sep 3, 2004 Policy Update

- ◆ DIR, DCMA has agreed to negotiate top-down corporate/facility strategies with top 30 DoD suppliers
 - Authorize corporate or facility exemptions IAW approved strategy
- ◆ Requests that the CAEs direct:
 - Program/item managers plan for UID legacy items in inventory/operation
 - Preparation of model program plans on a number of mission critical warfighting and combat support systems for submission by 11/04
- ◆ Plans target FY2007 as the point by which:
 - All existing serialized assets will be entered in UID registry
 - UID marking capabilities have been established such that marking can commence when equipment is returned for maintenance
 - Programs will have different levels of completion by 2010 based on maintenance and refurbishment schedules

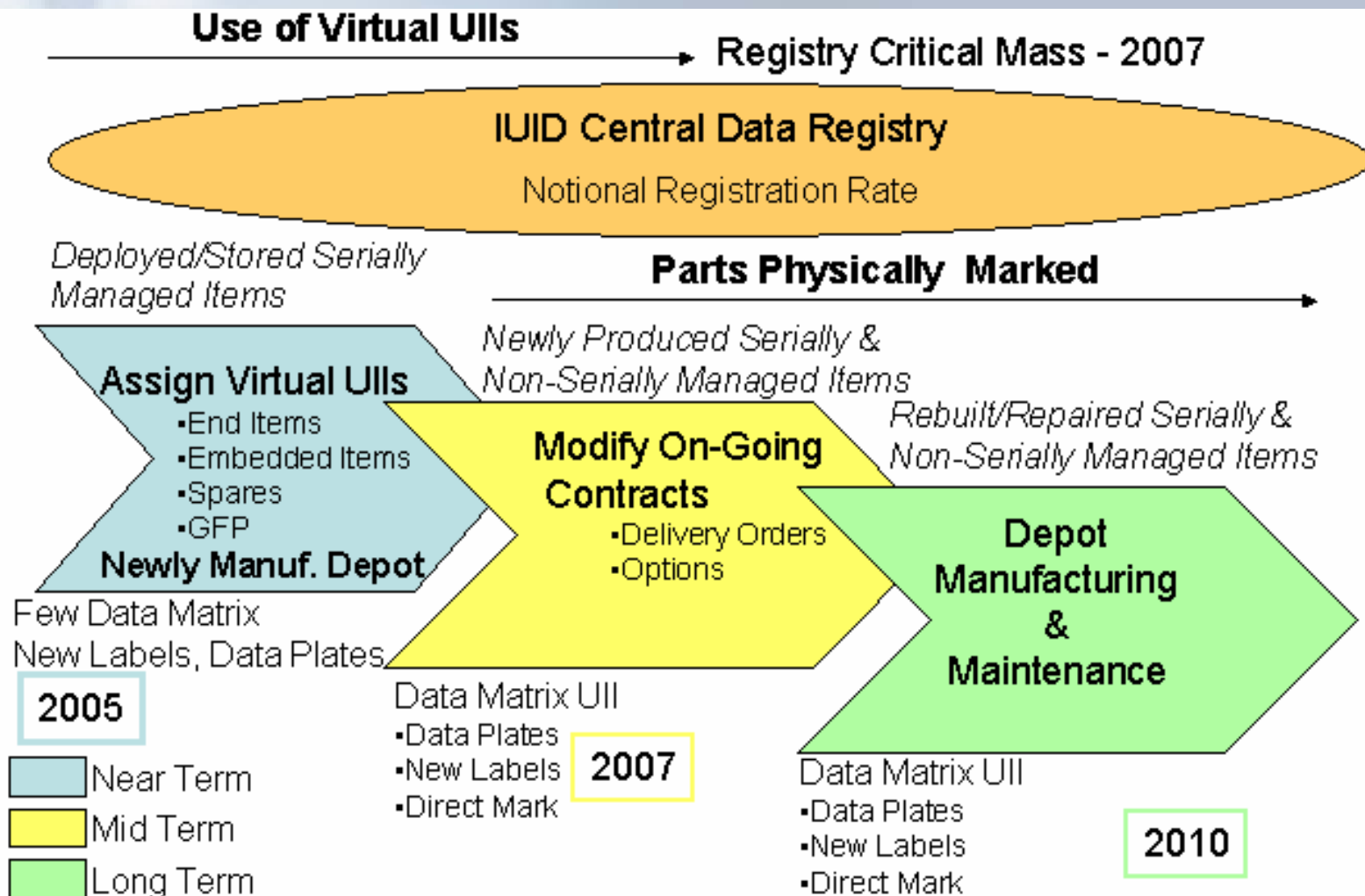


Key Highlights of Sep 3, 2004 Policy Update

- ◆ Services and DLA should have initial plans by 11/04 to develop infrastructure, modify AISs and propose exempted systems being phased out of inventory
- ◆ UID Program Office work issues and initiatives (including DoD-wide UID efforts) and finalize legacy UID policy by 12/04
- ◆ Publicizes the Joint Ordnance Commander's Group policy on Class V UID implementation
- ◆ JACG directed T-700 engine (H-60, AH-64, H-1) be used as a UID template
- ◆ Working with V-22, UH-60, C-17, B-1, AH-64; JDAM, and F/A-18 to develop program plans



Legacy Evolutionary Approach





Corporate Adoption

- > **Aerospace Engine Manufacturers and Suppliers**
 - Rolls Royce, Airbus, MTU, Pratt & Whitney, GE, Snecma and major suppliers
 - Sector led ATA agreement to apply UID construct on **ALL** production
 - Consistent application at Prime and flow-down to **ALL** suppliers to sector
 - Commercial and Defense suppliers can use a single marking approach for all production at all levels of the supply chain
- > **Lockheed Martin**
 - Corporate Implementation Plan implementation underway for new and legacy systems
- > **Rockwell Collins**
 - Corporate implementation for data plates and labels through very low cost process change impacts 60%-75% of all items
- > **Joint Aeronautical Commanders Group (JACG)**
 - Established multi-national working group to:
 - assess aerospace corporate implementation plans
 - establish process for Technical Documentation changes
 - determine legacy data UID requirements



Non-US DoD UID Requirement

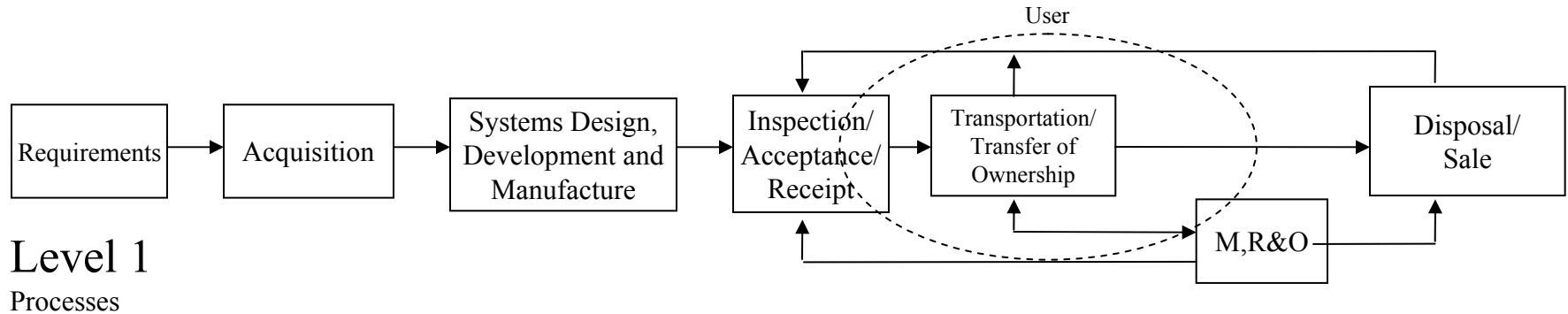
TP400-D6 Engine



Airbus A400M Transporter



An Industry View of Potential Lifecycle UID Data Capture/Use



Level 2 Processes

Requirements Mgmt	Supplier Mgmt Procurement Inventory Mgmt Contracts Mgmt	Configuration Mgmt Inventory Mgmt Manufacturing Part Marking Assembly Packaging Distribution/Shipping	Inspection Acceptance Receiving Payment Validation	Loading Hauling Tracking Unloading Inventory Mgmt Property Mgmt X-fer Ownership	Repair Upgrade/Modification Preventative Maint. Failure Analysis Inventory Mgmt Marking/Remarking Configuration Mgmt	Consumption Demilitarize FMS Intra-gov't transfer Inter-gov't transfer Scrap
-------------------	--	---	--	---	--	---

Level 3 UID Transactions

Identify UID items	Solicitations Contracts Trace-ability	Mark Scan Populate Ship Notice Populate DID/CDRL Populate CM system	Populate Registry Update Inventory	Update PM system Update Inventory Populate Trans. Doc.	Update Registry Update Inventory Update Maint. DB Update CM system Update PM system	Update Registry Update Inventory Record in PM system
--------------------	---	---	---------------------------------------	--	---	--



QUESTIONS???

LeAntha Sumpter, UID Program Manager

Leantha.Sumpter@osd.mil

www.acq.osd.mil/dpap/uid

(703) 681-7564



Backup



UID Of Assets: Why Do It?

Acquisition

- Increase Business Intelligence
- Enable Paperless Government Furnished Property Management
- Leverage Commercial Technologies And Practices
- Increase Supply Chain Visibility
- Create A Common Language Of Business

Logistics

- Increase Systems/Equipment Operational Availability
- Lower Costs Of Managing Assets
- Improve End To End Asset Visibility
- Reliability And Maintainability Info On Each Item Through Life
- Improve Supply Chain Efficiency

Accounting and Finance

- Enable Clean Audit Opinion
- Reduce Late Interest Penalties

Joint Forces

- Increase In-transit Visibility
- Decrease Frustrated Freight
- Enable Coalition Support
- Improve Data Quality And Interoperability



2D Data Matrix





UID Policy Overview - Assets

- > **UID Is Required For All Property Items Delivered To The Government When Any One Or More Of The Following Are True:**
 - Acquisition Cost Is More Than \$5,000
 - Item Is DoD Serially Managed, Mission Essential, Or Controlled Inventory Piece Of Equipment Or Repairable; Or A Consumable Item Or Material Requiring Permanent Identification
 - Item Is A Component Of A Delivered Item And PM Requires UID
 - UID Or DoD-recognized Equivalent Is Available
- > **UID Includes Physical Marking And Delivery of Associated Item Data Elements**
- > **Wide Area Workflow (WAWF) Mandatory Payment Requirement No Later Than Jan 1 '05**
 - Venue To Capture/Flow Associated UID Elements